

REMARKS

The application has been reviewed in light of the Office Action dated November 14, 2008. Claims 1, 4 - 7 are pending in this application, with claim 1 being in independent form. By the present Amendment, claim 1 has been amended and claims 6 and 7 have been added. It is submitted that no new matter has been added and no new issues have been raised by the present Amendment.

Claims 1, 4 and 5 were rejected under 35 U.S.C. §103(a) as allegedly obvious from U.S. Patent 7,050,977 to Bennett. Applicants have carefully considered the Examiner's comments and the cited art, and respectfully submit independent claim 1 is patentable over the cited art for at least the following reasons.

Independent claim 1 relates to a method for natural voice recognition based on a generative transformation/phrase structure grammar. The method comprises analyzing a spoken phrase for triphones contained therein, forming words, contained in the spoken phrase, from the recognized triphones with the aid of dictionaries and syntactically reconstructing the spoken phrase from the recognized words using a grammar. The method is characterized in that the syntactic reconstruction of the spoken phrase comprises allocating the recognized words to part-of-speech categories, including verbs, nouns, etc., allocating the part-of-speech categories to nominal phrases and verbal phrases, combining the nominal phrases and verbal phrases according to syntactic rules into an object having a sequence of part-of-speech categories and comparing the sequence of the object having the sequence of part-of-speech categories with a plurality of sequences of part-of-speech categories of predetermined sentence models, and, in the case of an agreement, a sentence is considered as recognized and an action in a voice controlled application is triggered. Each predetermined sentence model has a number of variables allocated to part-of-speech categories, and when a sentence is considered as

recognized, the variables allocated to the part-of-speech categories of the recognized sentence are filled with corresponding part-of-speech categories of the recognized words.

Bennett, as understood by Applicants, relates to a speech-enabled server for internet website and method. A two step algorithm is provided for processing of the speech input signal. The first step is a “high-speed first-cut pruning mechanism.” The text string undergoes morphological linguistic processing, the string is tokenized, the tags are tagged and the tagged tokens are grouped. The noun phrases (NP) of the string are stored and copied and transferred for use by DB Engine 186 during a DB Process at step 1110. The string corresponding to the user’s query which was sent to the DB Engine 186 is used together with the NP to construct an SQL Query which is executed to retrieve a record set of potential questions corresponding to the user’s query. The second step then processes the record set of potential questions.

The Office Action suggests that according to Bennett, after the phrases are syntactically categorized with part of speech information, lists of noun phrases and possibly verbal phrase sentence are extracted from the user’s question while on the other hand the routine retrieves a noun phrase list from the list of a corresponding candidate syntactic sentence/question and a match is performed between the phrases articulated by the user and the candidate sentences (model). The Office Action cites several portions of the Bennett patent as allegedly disclosing comparing the sequences of the part of speech with a plurality of stored candidate sentences of part of speech categories in order to select one and performing an action accordingly.

As understood by Applicant in the second step performed by Bennett, for each stored question that is returned in the recordset, a noun phrase of the stored question is compared with the noun phrase of the user’s question. After all stored questions of the array are compared with the user’s question, the stored question that yields the *maximum match* with the user’s question is selected as the best possible stored question that matches the user’s question (col. 7, line 56

– col. 8, line 1. However, as indicated in Bennett, the “metric that is used to determine the best possible stored question is the number of noun phrases” (col. 8, lines 1-3, emphasis added.)

In contrast, independent claim 1 recites comparing the sequence of the object having the sequence of part-of-speech categories with a plurality of sequences of part-of-speech categories of predetermined sentence models.

In other words, Bennett is concerned with the total number of noun phrase matches and not necessarily with their sequence compared with the sentence models as in the present disclosure.

In addition, in the earlier Amendment After Final Rejection, the Office Action suggested with respect to dependent claim 3, that Bennett taught that each sentence model has a number of variables allocated to part-of-speech categories which are filled with the corresponding part-of-speech categories of the recognized words, citing col. 33, lines 30-44 and col. 34, lines 34-49 of Bennett, wherein the “noun phrases” allegedly represent sentence models.

Independent claim 1 has been amended to include features from previous dependent claim 3 and now recites that each predetermined sentence model has a number of variables allocated to part-of-speech categories, and when a sentence is considered as recognized, the variables allocated to the part-of-speech categories of the recognized sentence are filled with corresponding part-of-speech categories of the recognized words.

Bennett is concerned with finding a candidate question that is closest to the user’s query so that an answer corresponding to the candidate question can be provided as an answer to the user’s query. However, Applicant finds no teaching or suggestion of filling part-of-speech categories of the recognized sentence with corresponding part-of-speech categories of the recognized words, as now recited in independent claim 1.

Accordingly, Applicant submits independent claim 1 is patentable over the cited art.

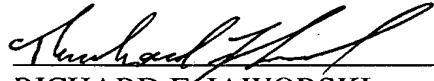
The Office is hereby authorized to charge any additional fees that may be required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition, and the Commissioner is authorized to charge the requisite fees to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Entry of this amendment and allowance of this application are respectfully requested.

Respectfully submitted,



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